

REPORT

OF

M. GEORGE DYRE ELDRIDGE

ACTUARY

Relating to Valuation of Certificates

OF

La Société des Artisans Canadiens Français



MONTREAL

ARBOUR & DUPONT, IMPRIMEURS-ÉDITEURS

249, rue Lauchetière Est



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OF

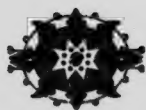
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REPORT
OF
Mr. GEORGE DYRE ELDRIDGE
ACTUARY
RELATING TO VALUATION OF CERTIFICATES
OF
La Société des Artisans Canadiens Français

Messrs. LUDGER GRAVEL, General President,

and Members of the Executive Council,

La Société des Artisans Canadiens-Français,

Montreal, Canada.

Gentlemen,

In the early part of the year, I was entrusted, under instructions received from your General Secretary-Treasurer, Mr. Henri Roy, with the work of valuing the certificates of the Society outstanding as of December 31st, 1912. As you are aware, the valuation the current year has a double importance from the fact that, for the first time in the history of fraternal organizations, a report of such valuation is required to be filed with the several Insurance Departments where a society is licensed to do business.

The blank prepared by the Committee of the National Insurance Convention for the report of the results of such valuation was made

as simple as possible and calls for very few details. This was undoubtedly adopted with a view to making the work so new in fraternal experience as simple as possible. To arrive at these results accurately, however, requires as detailed valuation as if the report covered more items.

The results of the valuations of the current year have, under the terms of the several statutes, and by agreement among the Insurance Commissioners, not been generally made public, it being held that the purpose of such valuation was largely to bring the societies and the commissioners into touch, reveal the defects in the method of keeping records and preparing data in the several offices, and secure a mutual understanding through which such defects should be remedied and the foundation laid for a more complete and satisfactory valuation as of December 31st, 1913, the result of which valuation the statute requires to be made public.

While these precautions were unquestionably essential in the case of a large number of societies, they were of no particular moment or importance to the French Canadian Artisans Society, whose office records are, and long have been, so kept that the data requisite for valuation can be accurately obtained. The wise precaution of the Society, also, in having previous valuations made, has put it so completely in touch with the situation as to render unnecessary these preliminary precautions.

I have already reported to your Board, through the Secretary, the general result of the valuation, filing in his office a copy of the blank, filled out and attested by myself, in the form in which it was sent to the several Insurance Departments. In accordance with the desire of your Board, which I most heartily commend, copies of this valuation were prepared and filed in all jurisdictions, without regard to the question of whether the law required the same or not. The very satisfactory result of this valuation has long since been commented upon, and I may say that in meeting with the fraternalists of the country during the months since the completion of the valuation, I have heard the very warmest appreciation invariably expressed of

the position which your Society occupies and the almost unexampled position in which the valuation places it.

As indicating something of this, I may state that within the last fortnight, in conversation with the Actuary of one of the most important Departments of the United States, he told me that of all the fraternal societies filing valuations the current year, embracing all of the largest and most important, but three showed 100% of sufficiency. Measured against this, the 109% shown by the Artisans is noteworthy and most satisfactory.

The work of valuation of your Society presents a more than usual amount of detail, because of the necessary separation of the business written since 1906 into a separate division so far as valuation, and also because of the necessity of separating the business written prior to 1907 into the separate classes representing the various options that were accorded under readjustment. While this is a necessary incident of the breadth of selection extended to your membership affected by the readjustment, I have no question, and I am certain no one can have a question in the light of the results, of the wisdom which dictated the granting of these several options. The almost, if not quite, unprecedented success attained in the work of readjustment, seems to me to have been due, in some degree at least, to the breadth of choice offered to the membership, through which each individual member was able to meet, and adjust his insurance to, his own needs. Anything less than this breadth of choice I am certain would have crippled somewhat the effectiveness of the work done, and I am confident that you will agree with me that any slight enhancement of details is a low cost to pay for the complete success attained.

As stated, the formal report filled with the several Insurance Departments deals only with aggregates, and it has seemed to me proper that here should be filed in your office a report following somewhat the lines of the reports of 1911 and 1912, thus making a matter of record of facts that do not appear in the general official valuation blank.

One of the important parts of such a report is the ability for critical comparison, year by year, of the reserves required and the growth of liability under the business written since 1906, which has not been subjected to readjustment, and which will not, on account of the adequate rates at which it was originally written, at any time call for such readjustment. Accordingly, I present, in the same form in which it was presented in the reports of 1911 and 1912, the record of this valuation, given below in :

TABLE I.

Column A.—Year of Issue.

- " 1.—Number of Members.
- " 2.—Insurance Outstanding.
- " 3.—Present Value of Insurance Outstanding.
- " 4.—Present Value Future Net Premiums.
- " 5.—Reserve Required for maintaining Rates Level.
- " 6.—Reserve per each \$1,000 of Insurance.

A	1	2	3	4	5	6
1907	2,312	\$ 1,448,000	\$467,687	\$381,997	\$ 85,690	\$59.18
1908	1,810	1,159,050	349,389	297,878	51,511	44.44
1909	1,913	1,277,050	354,446	315,244	39,202	30.70
1910	2,265	1,544,500	418,372	385,056	33,316	21.57
1911	3,596	2,458,500	626,929	597,637	29,292	11.91
1912	3,106	2,192,600	559,288	550,286	9,002	4.11
	15,002	\$10,079,700	\$2,776,111	\$2,528,098	\$248,013	\$24.61

In the above table we have the record of six years of business, as against five presented in the report of 1912 and four in that of 1911.

The insurance in force in 1911 was \$6,330,050 ; in 1912, \$8,630,550, and the present year, \$10,079,700. The comparison of aggregates is as follows :

TABLE II

Column A.—Year of Issue.

- " 1.—Present Value of Insurance Outstanding.
- " 2.—Average Present Value of each \$1,000.
- " 3.—Present Value of Future Net Premiums.
- " 4.—Average Present Value of Net Premiums per \$1,000.
- " 5.—Reserve Required for maintaining Rates Level.
- " 6.—Reserve per each \$1,000 of Insurance.

A	1	2	3	4	5	6
1910	\$1,772,898	\$280.06	\$1,656,286	\$261.64	\$116,612	\$18.42
1911	2,379,033	275.65	2,200,187	254.93	178,846	20.72
1912	2,776,111	275.42	2,528,098	250.81	248,013	24.61

You will note from the above that the required reserve has considerably more than doubled, the increase from the end of 1910 to the end of 1911 being \$62,234, and that from the end of 1911 to the end of 1912 \$69,167, a total of \$131,401 as against the required reserve at the end of 1910 of \$116,612.

This reserve has been accumulated, of course, from the premiums actually paid by these members, and in addition to this, this business has aided materially the former membership and has been of great assistance in working out the problem of readjustment along lines which has placed the entire business of the Society upon a firm and solid foundation, without laying undue burdens upon any member. In fact, the readiness and complete success with which the Artisans have been able to solve, so far as its own membership is concerned, the troublesome question which is the dangerous factor in the problems involving most fraternal organizations of any considerable age, namely, the securing of sufficiency of premium from members of advanced age, without placing upon them oppressive burdens, has been most materially simplified by the existence of this mass of business, constantly growing in amount, written upon adequate rates, and under a favorable mortality experience constituting a help to the older business of the Society.

In the valuation of this older business written prior to 1907 and constituting the business that was subjected to readjustment, I desire to present the results so far as the computation of the present value of insurance is concerned by division of classes, as hereunder, in:

TABLE III.

LA SOCIETE DES ARTISANS CANADIENS FRANCAIS

NATIONAL FRATERNAL CONGRESS TABLE, 4 per cent Interest.

Valuation of Business, Years of Entry 1877 to 1906, both Inclusive,
as of December 31, 1912.

Column 1.—Year of Issue.

"	2.—Present Value Insurance Outstanding, Class A.
"	3.— " " " " " B.
"	4.— " " " " " C.
"	5.— " " " " " D.
"	6.— " " " " " E.
"	7.— " " " " " Total.
"	8.—Present Value of Future Payments on basis of Actual Rates, 12 Monthly Payments per Year.
"	9.—Required Reserve.
"	10.—Reserve per \$1,000 of Insurance.

1	2	3	4	5	6	7	8	9	10
1877	\$ 1,414	\$ 2,101	\$ 413	\$ 000	\$ 000	\$ 3,928	\$ 1,617	\$ 2,311	\$413.12
1878	1,846	633	000	000	000	2,479	1,544	935	233.75
1879	000	000	000	000	000	000	000	590	00.00
1880	1,480	000	000	000	000	1,480	890	1,117	196.67
1881	1,321	753	000	000	000	2,074	957	2,382	372.33
1882	3,638	1,860	000	000	000	5,938	3,556	1,610	221.35
1883	2,180	2,234	000	000	000	4,414	2,804	3,664	201.25
1884	5,744	4,524	000	000	000	10,520	6,856	5,144	198.80
1885	9,318	5,249	000	000	000	14,567	9,423	8,907	205.76
1886	13,659	9,450	000	000	000	23,475	14,568	29,147	219.81
1887	58,718	31,402	282	000	628	91,030	61,883	47,132	179.08
1888	95,032	74,562	992	000	1,446	172,032	124,900	118,827	143.36
1889	269,619	175,217	3,819	000	5,845	454,500	335,673	125,666	133.26
1890	281,954	161,060	4,603	000	4,747	452,364	341,477	110,887	121.14
1891	293,723	159,992	4,747	000	4,815	463,277	337,611	97,770	133.49
1892	254,107	144,938	5,961	488	5,136	410,630	312,851	90,723	112.16
1893	257,703	143,147	3,422	000	3,312	407,584	316,861	111,444	100.42
1894	329,757	128,792	6,753	000	4,760	470,062	358,618	61,323	108.90
1895	220,004	87,581	3,280	000	3,460	314,325	253,002	25,204	85.84
1896	102,606	30,964	3,680	000	847	138,097	112,893	58,297	74.51
1897	253,537	54,494	6,334	1,012	1,051	316,428	258,131	31,575	72.20
1898	145,602	35,228	3,696	000	1,052	185,578	154,003	57,499	65.66
1899	278,356	78,591	4,671	000	2,338	363,956	306,457	53,849	59.85
1900	285,038	75,107	7,045	000	1,765	368,955	315,106	65,913	52.47
1901	376,233	78,898	7,602	000	2,792	465,525	399,612	65,759	50.39
1902	425,032	83,534	8,024	270	2,342	519,202	453,443	50,828	43.18
1903	365,774	60,919	6,683	000	1,872	435,248	384,420	70,327	38.38
1904	612,182	87,825	7,582	283	2,155	710,027	639,700	69,142	31.82
1905	692,289	97,102	7,066	257	1,397	798,111	728,969	73,816	27.10
1906	811,311	124,370	3,888	000	2,018	941,587	867,771		23.39
	\$6,449,177	\$1,940,527	\$100,543	\$2,310	\$54,836	\$8,547,393	\$7,105,596	\$1,441,797	\$63.91

You will recall that in the preparation for readjustment the business in force as of December 31st, 1911, was valued as if in force December 31st, 1912, with the readjusted rates as suggested in the report of 1912 and subsequently adopted by your General Convention. Of course it was understood, and in fact set forth, that there would be shrinkage in the business, but with a view to absolute certainty of result, since it could not be known in advance whether such shrinkage would affect favorably or unfavorably the general results, allowance was not made for any decrease in the business. It is interesting now to note, through a valuation on the same basis of the actual business in force on December 31st, 1912, the comparative results. From this we find that the present value of the insurance had decreased from \$9,371,293, at which it would have stood if all business had remained in force, to \$8,547,393, a decrease of \$823,900, or a trifle under 9%. The present value of future premiums had correspondingly decreased from \$7,834,788 to \$7,105,596; a decrease of \$729,192, or a trifle over 9%. Prior to shrinkage, the ratio of the value of future premiums to the value of the insurance was 83.6%. On the actual business remaining in force it was 83.13% showing that the shrinkage was less than one-half of one per cent, I regard this result as extremely favorable.

The valuation of the entire business called for a reserve of \$1,536,505, which sum the Society would actually have in hand in invested resources. The reserve called for by the business actually remaining in force was \$1,441,797, showing that the shrinkage of the year released \$94,708. As this shrinkage was not of such a character as to affect adversely the mortality of the Society, this released reserve actually goes into the surplus of the Society and corresponds in nature to the surrender charge made under ordinary insurance to protect the company against adverse selection. Unfortunately, in the case of beneficiary societies as a rule, the non-existence of the reserve deprives them of any such protection in the case of shrinkage, and exposes them to the adverse effects without any compensa-

tion. This condition does not exist in the case of the Artisans, and as a result, lapse of business is fully compensated by released reserve, and no detriment to the persistent members will result from any ordinary or normal shrinkage in old business. Whatever injury might have been anticipated from the abnormal shrinkage due to readjustment, such anticipation is shown by the actual fact to have been without foundation, and we have the remarkable showing of a readjustment successfully made, without giving rise to adverse selection in the matter of mortality, with the business placed upon a sound basis, and an actual surplus earned while the process was going on.

If we deduct this \$94,708 from the surplus of the Society shown at the end of 1912, namely, \$153,592, we have an approximate showing of the surplus earned from the transaction of the business, independent of discontinuances, for the past year, namely, \$58,884. It is to be noted that these figures do not take account of the loans on certificates which were not included in the assets, and which amounted at the end of the year to \$11,177.

In my opinion, before the close of the year we should take into account a method of entering these upon the ledger, so that they will appear as ledger assets in future reports of the Society.

It is not necessary in this report more than to refer to the securing of the license of the Society in the State of New York. This matter has already been reported upon to your Board, but I call attention to the fact that under the strict administration of the New York Insurance Department, details of rates, readjustment and policy conditions were gone into with the utmost care, and so that, in fact, it constituted a critical re-examination of all these matters and the approval of them by the authorities of the one Department of the United States which, with that of Massachusetts, stands at the very head of the Departments in the matter of care and closeness of supervision. The fact that the Artisans Society is licensed

in these two States would practically constitute such a certificate of standing, sufficiency and regularity of operations as to make its admission into any of the other States unquestionable and comparatively simple in detail.

It may be mentioned in this connection that in the course of the application for admission to New York, it became necessary to determine whether the Society had such a reserve as under the law of that State entitled it to the granting of surrender values. This requirement is, in effect, that it shall be such a reserve as would under ordinary conditions be required on the basis of the American Experience Table of Mortality with interest at 4% under insurance in force of the nature and of the classes of insurance actually in force in the Society. While this reserve is no greater in the case of whole life premium paying policies under the American Experience Table with 4% interest than it is under the National Fraternal Congress Table with 4% interest, such required reserve is considerably larger in the matter of paid-up insurance, in which must be included technically that portion of the premium paying business which has been subjected to readjustment that is represented by the annuity granted to the old members in reduction of their rates. This fact called for enhanced reserve which amounted to a substantial sum, especially in the case of those members who were granted the \$3.44 per month rate, instead of being required to pay the actual rate that would have resulted from giving them simply their share of the accumulated fund. For example, take the case of a man admitted in 1886 at age 45, who would, had there been no modification in the readjustment, been required to pay \$7.70 per month, but who in actual fact is required to pay only \$3.44. The purchasing power of this difference really becomes, in the valuation of the character I have named, the representative of paid-up insurance, subject, when the American Experience Table is applied, to the higher single premium charge for paid-up insurance.

Notwithstanding these adverse conditions, the Society was able

to show itself as entitled to this right of surrender value under the New York law, with still a margin of surplus of \$61,911, in which was not counted the \$11,000 of loans on certificates. While this requirement of the submission of satisfactory proof to the New York Department called for an additional valuation, the slight cost thereof seems to be amply compensated for in the establishment of the fact of the Society's ability to meet this and every test that can be legitimately applied.

The experience of the year, as discussed with your managing officers, seems possibly to indicate the desirability of putting forth a further form of contract which shall meet, perhaps, better the need of those members who desire an old age benefit than the provision for an annuity from and after age 70 seems quite to have done.

There ought also to be considered, before the meeting of the next General Convention, the question of the extent, if any, to which provision will be made under regular business, written at adequate rates, for surrender values. This does not affect the question of actual surplus earned, which will certainly, under the high rate of interest which you can obtain on securities and first class investments, be very considerable, but it does affect the question of the released reserves on business that may discontinue. The general mass of the membership should be absolutely and unquestionably protected to the extent necessary to guard adverse selection through such discontinuances. But under a system of level rate insurance, the accumulated reserve under each policy becomes ultimately very considerable, and it becomes a question whether in justice to the individual member who may be compelled to discontinue his insurance through adverse personal circumstances, he should be subjected to entire forfeiture of amounts paid by him to be applied to the purchase of further insurance. I do not believe that under a contract of fraternal insurance cash surrender values should be paid excepting in the form of old age benefits. But under a plan for the

payment of level rates, each member is paying for many years, in addition to the cost of current insurance, a certain amount toward the purchase of insurance in the future, at a time when his actual rate is less in amount than the cost of the full insurance he is carrying. This money is paid for the protection through insurance of dependent ones, and the mere fact he cannot continue to purchase current insurance does not seem to justify denial to him of insurance in the future to the value of the pre-payments which he has made.

It would, therefore, seem to be exactly in line with the fraternal idea that each man should be assured of protection for his dependent ones in the form of insurance to the extent of the value of the rates actually paid by him, less such surrender charge as may be necessary to protect the mass of the membership against adverse selection. I believe, therefore, that the granting of a form or paid-up or extended insurance accords perfectly with the fraternal idea as a matter of equity and justice, and certainly, when a society has established itself upon adequate rates, as has now the Artisans, this question may be fully and properly dealt with. Unfortunately, the majority of fraternal beneficiary societies are not as yet in a position where this question can be practically taken up. This point is urged by some critics as a reason why no society should at the present time consider the granting of such rights or privileges. It does not seem to me that such an argument is sound. If by placing its membership upon adequate rates and requiring of them the payment necessary for security and safety, the Artisans Society has placed itself in advance of the general line of fraternal beneficiary societies, as it unquestionably has, it seems to me to be a legitimate sequence that its membership should receive all the benefits due from such a condition and that there can be no sound reason for denying them those benefits simply because other societies are not in position to grant them. I would urge, therefore, that this question be taken up seriously in connection with the preparation for the next General Convention, in order that it may be dealt with intelligently and that a well-consi-

dered plan may be presented which will be just to all the members and will sacrifice or injure the safety of none.

Congratulating you upon the position in the Fraternal world attained as a result of the splendid courage and wise action of your last General Convention, and assuring you of my firm conviction that that action opens the way to a magnificent future growth of your Society, I am,

Very sincerely yours,

GEORGE-DYRE ELDRIDGE,

Consulting Actuary.

Boston, Mass., October 1, 1913.
